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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,303	10/29/2001	James H. Stephens JR.	263550US8	1293

			EXAMINER
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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			SHAW, PELING ANDY
1940 DUKE STREET			
ALEXANDRIA, VA 22314		ART UNIT	PAPER NUMBER
		2144	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	05/01/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/045,303	STEPHENS, JAMES H.
	Examiner	Art Unit	
	Peling A. Shaw	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 February 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

P4S

DETAILED ACTION

1.   Amendment received on 02/06/2007 has been entered into record. Claims 11-20 are

amended. Claims 1-20 are currently pending.

2.   Applicant had submitted an Appeal Brief on 10/13/2006 together with amended claim

language changes on claims 11-20 in an effort to reduce issues with respect to 35 USC § 101.

Examiner had reviewed the amended claim changes and found that the amended claim changes

did touch upon the issues of claims 11-20 rejection under 35 USC § 101. This necessitated an

issue of non-final action dated 01/16/2007.

3.   Amendment received on 12/07/2005 was entered. Claims 1, 4, 5, 11-13, 16, 17 and 20

were amended.

Priority

4.   This application has no priority claim made. The filing date is 10/29/2001.

Claim Rejections - 35 USC § 112, second paragraph

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

Claim 20 is rejected under 35 U.S.C. 112, second paragraph as following:

   a. Claim 20 recites the limitation of "encode in the tangible computer-usable medium".

      There is insufficient antecedent basis for this limitation in the claim. For the purpose

      of applying art, claim 20 is read with the limitation of "encode in the tangible storage

      media" instead of "encode in the tangible computer-usable medium".

Clarification and/or correction are required.

Claim Rejections - 35 USC § 101 Utility

6.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

a. Claim 11 recites the limitation of "A tangible computer storage media ..." and further the limitations of "... tangible computer-usable medium ..." that is described in lines 9-14 on page 12 of applicant's original specification as "Alternative embodiments of the invention include computer-usable media encoding logic such as computer instructions for performing the operations of the invention. Such computer-usable media may include, without limitation, storage media such as floppy disks, hard disks, CD-ROMs, read-only memory, and random access memory; as well as communications media such wires, optical fibers, microwaves, radio waves, and other electromagnetic and/or optical carriers." The cited portion of the specification provides intrinsic evidence that Applicant intends for the phrase of "tangible computer-usable medium" as used in the claims to include both "storage or memory media" and communication media, where the communication media includes "...wires, optical fibers, microwaves, radio waves, and other electromagnetic and/or optical carriers ..." in addition to anything else which would have reasonably been considered to be a signal medium by one of ordinary skill in the art. As such, the claim covers embodiments directed to signals, per se. Since a signal lacks the necessary physical articles or objects necessary for it to be a machine or a

manufacture within the meaning of 35 USC 101, and it's clearly not a series of steps

or acts so as to be a process or combination of two or more substances so as to be a

composition of matter, it fails to fall within a statutory category. Since the claim is

not limited to embodiments eligible for patent protection, it is being rejected as non-

statutory as directed to a form of energy rather than a patent-eligible machine,

manufacture, process or composition of matter. Claims 11, 20 and their dependent

claims 12-19 are thus rejected.

b. The term of "computer-usable media" is being considered to encompass "storage

media or memory media such as magnetic or optical media, e.g., disk or CD-ROM"

would make it considered as tangible and statutory, but the inclusion of

"communication media or signals such as electrical, electromagnetic, or digital

signals, conveyed via a communication medium such as a network and/or a wireless

link" would make it considered as intangible and non-statutory.

c. For the purpose of applying art, claims 11 is read with the limitations of "tangible

computer-usable storage medium" instead of "tangible computer-usable medium".

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or
described as set forth in section 102 of this title, if the differences between the subject matter
sought to be patented and the prior art are such that the subject matter as a whole would have
been obvious at the time the invention was made to a person having ordinary skill in the art
to which said subject matter pertains. Patentability shall not be negatived by the manner in
which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan et al.

(US 6505244 B1), hereinafter referred as Natarajan as applied to claims 1 and 2, and further

in view of Evans (US 5694524 A), hereinafter referred as Evans and Yates et al. (US

6330586 B1), hereinafter referred as Yates.

    a. Natarajan shows (claim 1) a method for modeling video teleconferencing network

reliability (column 2, line 15-22; column 6, lines 49-65; column 29, line 37-column

30, line 33), the method comprising: obtaining historical data for multiple video

conferences (Fig. 17, item 1706, 1722; column 29, line 37-column 30, line 33);

storing said historical data in a call history table (Fig. 15; column7, lines 12-43:

feedback-based adaptive network, report network information to a centralized data

storage entity); executing a modeling algorithm that produces a model representing

the historical data (Fig. 17, item 1718 and 1720; column 6, lines 49-65; column 29,

line 37-column 30, line 33); analyzing the model to identify characteristics associated

with undesirable outcomes for the video conferences (Fig. 17, item 1720, 1724, 1726,

1728; column 6, lines 49-65; column 29, line 37-column 30, line 33); and configuring

a video teleconferencing network to avoid at least one of the identified characteristics

associated with undesirable outcomes (Fig. 17, item 1708, 1710, 1712, 1714; column

6, lines 49-65; column 29, line 37-column 30, line 33). Natarajan does not show

(claim 1) said historical data referenced to video teleconferencing equipment vendor

or model identification information; (claim 3) wherein the operation of executing a

decision tree algorithm comprises executing an ID3-based algorithm; (claim 7)

wherein: the method further comprises building a training set from the historical data;

the operation of executing the modeling algorithm comprises applying the modeling

algorithm to the training set; and the operation of analyzing the model comprises:

deriving a rule set from the model; and analyzing the rule set to identify the

characteristics associated with undesirable outcomes for the video conferences;

(claim 9) the specification of multiple vendors in collecting and processing video

conference service performance data.

b. Yates shows (claim 1) said historical data referenced to video teleconferencing

equipment vendor or model identification information and (claim 9) the specification

of multiple vendors in collecting and processing video conference service

performance data (column 5, line 67-column 6, line 12) in an analogous art for the

purpose of reconfigurable service provision via a communication network.

c. Evans shows (claim 3) wherein the operation of executing a decision tree algorithm

comprises executing an ID3-based algorithm (column 9, line 12-19); (claim 7)

wherein: the method further comprises building a training set from the historical data

(column 1, line 51-column 2, line 13; column 2, line 42-58); the operation of

executing the modeling algorithm comprises applying the modeling algorithm to the

training set (column 1, line 51-column 2, line 13; column 2, line 42-58); and the

operation of analyzing the model comprises: deriving a rule set from the model

(column 1, line 51-column 2, line 13; column 2, line 42-58); and analyzing the rule

set to identify the characteristics associated with undesirable outcomes for the video

conferences (column 1, line 51-column 2, line 58); (claim 9) in an analogous art for

the purpose of system and method for identifying conditions leading to a particular

result in a multi-variant system.

d. It would have been obvious to a person of ordinary skill in the art at the time of the

invention was made to modify Natarajan's functions of policy engine which supports

application specific plug-ins for enforcing policies in a feedback-based, adaptive data

network with Evans' functions of using decision tree and training data set,

particularly ID3 extension C4.5 algorithm, Yates's functions of identifying a

particular result in a multi- variant system, and with specifying vendor consideration

in the network performance data collection.

e. The modification would have been obvious because one of ordinary skill in the art

would have been motivated to be able to use decision tree algorithm per Natarajan'

teaching and training data set in analyzing video conference performance, particularly

ID3 and its extension per Evans' teaching, and to include multiple vendor

consideration in specifying network performance data set per Yates's teaching.

f. Regarding claim 2, Natarajan shows wherein the operation of executing a modeling

algorithm that produces a model comprises executing a decision tree algorithm

(column 14, lines 5-50; column 15, lines 1-37: decision tree).

g. Regarding claim 4, Natarajan shows further comprising conducting a new video

conference with the video teleconferencing network configured to avoid at least one

of the identified characteristics associated with undesirable outcomes (Fig. 17, item

1720, 1724, 1726, 1728; column 29, line 37-column 30, line 33).

h. Regarding claim 5, Natarajan shows further comprising: updating the historical data

to create new historical data that includes values representing characteristics of the

new video conference (Fig. 15; column7, lines 12-43: feedback-based adaptive

network, report network information to a centralized data storage entity; Fig. 17, item

1706, 1722; column 29, line 37-column 30, line 33); executing the modeling

algorithm to produce a new model representing the new historical data (Fig. 17, item

1718 and 1720; column 29, line 37-column 30, line 33; column 14, lines 5-50;

column 15, lines 1-37: decision tree); analyzing the new model to produce a result

(Fig. 17, item 1720, 1724, 1726, 1728; column 29, line 37-column 30, line 33); and

reconfiguring the video teleconferencing network according to the result (Fig. 17,

item 1708, 1710, 1712, 1714; column 29, line 37-column 30, line 33).

i. Regarding claim 6, Natarajan shows further comprising: evaluating the model to

determine whether the model provides a desired level of efficacy (Fig. 17, item 1720,

1724, 1726, 1728; column 29, line 37-column 30, line 33); and in response to

determining that the model does not provide a desired level of efficacy, using a

different modeling algorithm to produce a different model (Fig. 17, item 1720, 1724,

1726, 1728; column 29, line 37-column 30, line 33).

j. Regarding claim 8, Natarajan shows wherein: the historical data includes attribute

values for attributes of each video conference and an outcome value representing an

outcome for each video conference (column 2, line 15-22; column 29, line 37-column

30, line 33); and the operation of applying the modeling algorithm to the training set

comprises: using the outcome values as categorical attributes for the modeling

algorithm (column 2, line 15-22; column 29, line 37-column 30, line 33); and using

the attribute values as non-categorical attributes for the modeling algorithm (column

2, line 15-22; column 29, line 37-column 30, line 33).

k. Regarding claim 10, Natarajan shows wherein: the training set includes values

representing a first set of attributes (Fig. 17, item 1706, 1722); and the method further

comprises: evaluating the model to determine whether the model provides a desired

level of efficacy (Fig. 17, item 1720, 1724, 1726, 1728); in response to determining

that the model does not provide a desired level of efficacy, building a different

training set that includes a different set of attributes (Fig. 17, item 1720, 1724, 1726,

1728); and applying the modeling algorithm to the different training set to produce a

different model (Fig. 17, item 1708, 1710, 1712, 1714).

l. Claims 11-14, 16 and 20 are of the same scope as claims 1-2 and 5. These are rejected

for the same reasons as for claims 1-2 and 5.

m. Claims 15 and 17-19 are of the same scope as claims 3 and 7-9. These are rejected for

the same reasons as for claims 3 and 7-9.

Together Natarajan, Evans and Yates disclosed all limitations of claims 1-20. Claims 1-20

are rejected under 35 U.S.C. 103(a).

Response to Arguments

8.   Applicant's arguments filed on 02/06/2007 have been fully considered, but they are not

persuasive.

   a. Applicant has alleged that Natarajan and Yates do not disclose or suggest applicant's

       claimed limitations of "historical data referenced to video teleconferencing equipment

       vendor or model identification information as per applicant's specification in line 30

       on page 7 to line 22 on page 8 and Figs 3-5". Examiner has reviewed applicant's cited

       reference in the specification. The specification disclosed a data structure of a data

       record containing vendor or model identification information. Per Background of the

       Invention in lines 11-19 on page 2 in applicant's specification, video network devices

       may come from different vendors. There is no further description on how the vendor

       and model information would be used in applicant's claimed invention. It is obvious

       to a person of ordinary skill in the art of network management at the time of the

       invention was that it must be necessary to identify one network equipment with its

       origin and specific function, i.e. manufacture and equipment name as per applicant's

       background information suggested and Yates has also shown (column 5, line 67-

       column 6, line 12) in similar situation that it is critical to identify vendor and service

       origin information for service management functions.

   b. Applicant has alleged that Natarajan does not disclose or suggest applicant's claimed

       limitations of "obtaining historical data for multiple video conferences, and storing

       this multi-conference historical data in a call history table". Examiner has reviewed

       applicant's original specification and claim language. Applicant has made general

statement on the alleged limitations without further detail description on the alleged

limitations. Natarajan has shown (Fig. 17, item 1706, 1722; column 29, line 37-

column 30, line 33) reporting packet drops to data store over time intervals; (Fig. 15;

column7, lines 12-43) a feedback-based adaptive network and report network

information to a centralized data storage entity in video conference applications.

c. Applicant has alleged that Natarajan does not disclose or suggest applicant's claimed

limitations of "executing a modeling algorithm that produces a model representing

the historical data" in light of lines 1-7 on page 9 of applicant's specification and item

101 in Fig. 6. Examiner has reviewed the claimed limitation in light of applicant's

recited references. There is no specific detail description how a particular algorithm is

used in analyzing historical data. Examiner has further reviewed the cited Natarajan

references in the claim rejection sections. Natarajan has shown (Fig. 17, item 1718

and 1720; column 6, lines 49-65; column 29, line 37-column 30, line 33) collecting

packet drop reports, evaluating effectiveness of current policy in controlling number

of packets dropped, administrative active monitoring and management policy in video

conference applications.

d. It is the Examiner's position that Applicant has not submitted claims drawn to

limitations, which define the operation and apparatus of Applicant's disclosed

invention in manner, which distinguishes over the prior art. As it is Applicant's right

to claim as broadly as possible their invention, it is also the Examiner's right to

interpret the claim language as broadly as possible. It is the Examiner's position that

the detailed functionality that allows for Applicant's invention to overcome the prior

art used in the rejection, fails to differentiate in detail how these features of

applicant's specification are unique (see items a-e in section 7). Natarajan and Yates

has shown the general art of monitoring and managing multiple communication

applications as provided by multiple vendors. It is clear that Applicant must be able

to submit claim language to distinguish over the prior arts used in the above rejection

sections that discloses distinctive features of Applicant's claimed invention. It is

suggested that Applicant compare the original specification and claim language with

the cited prior art used in the rejection section above or the Remark section below to

draw an amended claim set to further the prosecution.

e. Failure for Applicant to narrow the definition/scope of the claims and supply

arguments commensurate in scope with the claims implies the Applicant's intent to

broaden claimed invention. Examiner interprets the claim language in a scope

parallel to the Applicant in the response. Examiner reiterates the need for the

Applicant to more clearly and distinctly define the claimed invention.

Remarks

9.   The following pertaining arts are discovered and not used in this office action. Office

reserves the right to use these arts in later actions.

    a.   Hales et al. (US 6288739 B1) Distributed video communications system

    b.   Grabelsky et al. (US 6678250 B1) Method and system for monitoring and

       management of the performance of real-time networks

Conclusion

10.   THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy

as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS

from the mailing date of this action. In the event a first reply is filed within TWO MONTHS

of the mailing date of this final action and the advisory action is not mailed until after the end

of the THREE-MONTH shortened statutory period, then the shortened statutory period will

expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

11.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The

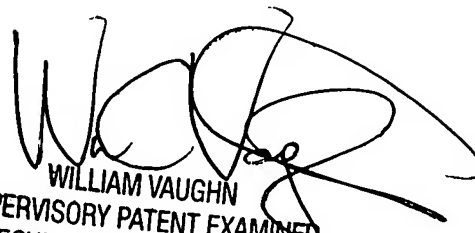examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for

the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the statu9s of an application may be obtained from the Patent

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